

RESULTS of USABILITY TESTS conducted on HTML version by Shere Chamness (April 12 to 22)

SITE STARTS OFF TOO TAME

Finding:

The site is engaging and interesting to the targeted age group, but all the “good stuff” is primarily at the end of the site. The first section is not sufficiently intriguing (compared with the last section). Users assume the entire site will have the same rather pale level of interest.

•Recommendation:

1. Add more interactivity or games to the beginning pages.
Suggestion: When user clicks “Research Rocket,” a Lightspeed effect whooshing by could take him to the title page. This could be created using a refresh page that loads quickly. (We would need to test this on slow browsers to see if it’s worth the effort, though).
2. Use ALT text for rollover areas to create a pseudo-event. It gives the impression of a text message appearing, in addition to the animation. Note: See “ALT TEXT” section at the end of this document.
•Unfortunately, this function will not work on Macintosh machines, so it shouldn’t be relied on for crucial information.

PORTAL PAGE (now shows SpaceDog, Research Rocket, and destination planets)

Finding:

Tutorial icon (Research Rocket) and database icons (planets) are confusing because they are equally interesting.

All the users in my tests clicked on the the “Research Rocket” first, but it’s not clearly differentiated from the planetary locations. It’s not clear that they are supposed to go to the Tutorial section first, then to the database links later, when they’ve learned how to do research.

•Recommendation:

1. Change the first page so that the “research rocket” is more prominent.
Keep the accompanying SpaceDog caption with “now boarding” arrow.
2. Reduce the size of planets, and place them into a clearly designated section labeled, “When You’re Ready To Do Research, Visit The Research Solar System.” This could look like a solar system diagram. If clicked, it would take the user to a page with the planets very large, as they are now. *See next item.

RESEARCH SOLAR SYSTEM* (MAKE A NEW PAGE)

Show planets with names around them on this page. Mouseovers could yield a description similar to the KVL RESOURCES page shown later in this document. Each planet takes user to database location. Perhaps we could have some info about UserName and Password here?

TITLE PAGE (How To Do Research, starring SpaceDog and YOU!)

Finding:

Kids like the smiles, winks and stars that appear when they mouse over character’s faces, but they expected something more to happen. So they became a little disappointed early in the tutorial. It lowered the expectations for the rest of the site.

•Recommendation:

1. Add some bigger event at this point – an interactive feature that promises more fun to come.
2. The SpaceDog needs to introduce the Topic Station site map page by saying “First, let’s make a stop at the Topic Station.” To reinforce the idea, a Topic Station icon could appear in the distance.
3. The word YOU could have some special emphasis on rollover – a color glow, or it could become larger.
4. The characters might have caption bubbles with text that users can read.

SITE SEEMS TOO LONG FOR TARGET AUDIENCE (ADD GRAPHIC SITE MAP IMAGE HERE)

Finding:

Users lose interest about midway through the tutorial because the site seems too long. This is caused by viewing site in strict linear sequence.

•Recommendation:

1. Retain linear structure of pages but add a graphic site map with clearly delineated areas of study.
2. Site map can be made to resemble a board game with outerspace imagery
3. Insert this map at the very beginning of the site so user is required to launch from there into tutorial

Benefits:

- creates a mental image of entire site, allows user to visualize before entering
- user can skip areas he/she is not interested in, go directly to sections he/she finds intriguing
- gives impression of a game to be played
- gives clear idea of research STEPS that lead to achievement of final GOAL

TUTORIAL PAGE HEADERS

Finding:

Users are intrigued by the little planetary icons across the top. They do not realize that these icons represent other sites.

Clicking an icon takes the user to a page requiring UserName and Password (except Kentuckiana). Younger children are confused by this unexpected turn of events. Either they are completely turned off (and feel betrayed) by these pages, or they continue to click on items (especially on the Kentuckiana pages) and forget the tutorial completely. In some cases, they just clicked on anything that looked promising, becoming more and more frustrated and lost.

Not one child used the back button until prompted to return to the tutorial pages. Instead, they continued to click forward, not realizing they had veered into a different section.

•Recommendation:

1. Remove the planet icons from the tutorial pages.
(We might want to retain the tiny planet images without any names and have them appear randomly throughout the site, but in the background.)
2. Retain the Topic Station icon so user can return to the site map:
Place the Topic Station icon next to the "All the Information in the Known Universe" element.
Make it very clear that the Topic Station icon will return the user to the site map.
(Perhaps by showing the Topic Station icon on the site map as part of the title.)
3. Link the "All the Information in the Known Universe" graphic image to the INTRO page.
4. UserName and Password issue. We may need to insert a page telling users to ask their teacher or librarian (or other authority) for this information. (See RESEARCH SOLAR SYSTEM listed earlier.)

TEXT LINKS AT BOTTOM OF PAGE

Finding:

If we remove the planet links, then we should also remove the individual text links on each page. However, we should retain an overall link to all these potential destinations. We could call it the "Research Solar System", or whatever phrase is used on the Portal Page.

TUTORIAL - PAGE SUBHEADINGS

Finding:

Children did not notice the subhead information (except for one youngster, who read every word on the pages he visited!) They missed the title of the page, as well as important instructions on some pages.

•Recommendation:

1. Do something to draw attention to the subheader material:
 - a. Make certain words blink upon rollover.
 - b. Add graphic icons that show up when user mouses over the title.
NOTE: These could be repeated in the Site Map section to visually reinforce the link concept.
2. Simplify other header elements (remove planet links as buttons)

TUTORIAL - GENERAL

Finding:

Children were frustrated by words they did not recognize.

•Recommendation:

1. CAPITALIZE certain words that children might want to see defined. Link these to the glossary words.
2. Add a glossary section, which is easily accessed by clicking on a CAPITALIZED word in the text.
3. Add a note about this function on several places so kids know it's there.
4. If possible, have the exact word "pop-up" in a separate glossary window (using named anchor links with javascript code to open new window).

FIRST SECTION - GENERAL

Finding:

Animations on the first several pages of Tutorial are created merely to demonstrate concepts. Yet the users kept expecting them to be "clickable" (to take the viewer to another page). Users seemed disappointed when the rollovers merely changed form.

•Recommendation:

1. Emphatic text telling user to "ROLL YOUR MOUSE OVER" something, perhaps with arrows and graphics. (in the manner of the arrow pointing to "Research Rocket" on intro page.)

•Optional adjustment*

1. Make something else happen when user rolls over an item.

*Not recommended: it will expand the site, which is already too long to sustain target user's interest.

BACK BUTTONS

Finding:

Back Buttons were occasionally confusing because they were coded in a linear sequence. Yet some pages (including the "Locate Information" page) are like central stations, from which users go to secondary pages.

•Recommendation:

1. Use javascript code on ALL "back buttons" so browser will return to last page visited.

EBSCO SPANISH MAGAZINE LINK

Finding:

Link doesn't live up to its name. Change "Spanish Magazine" to "Search in Spanish" throughout site.

Individual Pages Examined:

DEFINE YOUR SUBJECT

Minor complaint: two girls have the same initial thought bubble text. Change text slightly.

Note: the caption bubbles start out with text, which turns into images when user mouses over them. In addition, the ALT text shows a secondary answer, so the user feels a little more satisfied with activity on this page.

BRAINSTORMING

Finding:

Here's where everybody expected something exciting to happen. The lightning flashes just weren't satisfying enough, and nobody paid any attention to the list at all.

•Recommendation:

1. Make items appear on list as user mouses over each person. (These will evaporate when user rolls off, but that can't be helped in the HTML version. At least the user may notice that we are making a list here.)

GROUP SIMILAR IDEAS

Finding:

Synonyms section was informative and kids showed an interest, but the section was slow to load and clumsy.

•Recommendation:

1. Reduce number of synonym words
2. Put both "synonym" and "not a synonym" on same side of dog.

QUEST STRATEGY

Finding:

The page asks kids to "decide which of these is the best place to look for answers," but then they are frustrated because they expect to be making a choice. They expect to have to click on something when the boxed lists come up. Or one girl thought she was supposed to decide which of the four "classifications" was the best. She missed the concept that they are all excellent resource locations.

•Recommendation:

1. Change wording so it is clear they are not being asked to DO something. Say something like, "Roll your mouse over each place to see a list of resources. Be sure to include some of these in your quest strategy".

GATHER YOUR TOOLS

Finding:

The backpack was a delightful idea, but kids tried to DRAG items (impossible in the HTML version). Apparently there are many Flash-savvy kids out there these days! They finally discovered they could "click" the items and the backpack would open or not.

Also, it was not immediately clear that the backpack opens up when correct items are clicked, but remains closed when inappropriate items are clicked. The interface seemed a bit clumsy and there was some argument about what constituted a "correct" item.

One youngster really wanted that banana, and remarked, "But you have to eat before you go, or you'll get hungry..." Another one said the "thinking cap" wouldn't fit. Another was upset about the laptop, thinking the message was that he HAD to take a laptop and he didn't own one.

•Recommendation:

1. Add words to the backpack as it opens to signify YES or MAYBE for the "good" items. Add NO or DON'T TAKE IT or something like that for the "bad" items.
2. Alternate the "good and bad" elements so "open or close" activity is more obvious.
3. Add text in subhead (and emphasize it) to tell kids to roll over the items to see which ones to pack.

LOCATE INFORMATION

Finding:

After going through several pages with rollover events that don't GO anywhere, the user expects graphics on the Locate Information page to be the same. But the graphic images on this page are actually buttons.

•Recommendation:

1. Make backgrounds behind the books or computers change color when rollover occurs.
2. Possibly add text: "Click on any item below to learn about the resource."
3. Delete "Locate Information" button on all pages where it appears.

KENTUCKY VIRTUAL LIBRARY RESOURCES

Finding:

EVERY USER tried to click on planets in center.

•Recommendation:

1. Upon rollover, lines should appear to connect text with related planet icons.
Names of locations in text block could also be highlighted upon rollover.
2. Refer to the "Research Solar System".
3. Tell user that clicking on any of these planets will take him/her to a destination where he/she can do research.
4. Change the text "vast array" to "more resources than you can count".
5. Change "Spanish Magazine" to "Search in Spanish".

LIBRARY CATALOG

Edit length of text throughout page wherever possible.

TABLE OF CONTENTS/ INDEX

Fine as is. Kids liked the circles which appeared on text, and read the text to see what was happening. One boy was delighted to report that the text related to the key words.

MAGAZINE

Edit length of text if possible. Isolate bits of information in blocks or with colors.

DICTIONARY

Finding:

Kids liked the idea and sort of "traced" the path trying to figure out the machine concept.

•Recommendation:

1. Make machine a little more interactive.
2. Add "wrong" and "right" to spellings of astranot and astronaut.
3. On rollover, emphasize the word "COOL" in "A cool way to learn a new word..." text at right.

WHAT IS A SEARCH ENGINE?

Finding:

The "Super Searchers Only" button was too attractive to resist, and users ended up skipping the more important "How To Do A Search Engine Query" page.

•Recommendation:

1. Move the Super Searchers Only button from the "What Is A Search Engine" page to the next page ("How To Do A Search Engine Query").
2. Leave more space between paragraphs and add separate boxes.
3. Delete "Five-Finger Test" reference on this page.

SEARCH ENGINE QUERY

Finding:

Users tried to type text into the sample Search Engine blank.

•Recommendation:

1. Put "dogs in space" text into white blank at beginning. Mouseover will still make red arrows appear.
2. Add red lines to connect to the three "dogs in space" references within response page.
3. Each reference could also be circled in red to dramatically illustrate that query words will show up in the response list.
4. The "Laika: Sputnik 2, November 1957" highlight should be blue instead.

SUPER SEARCHERS ONLY

Finding:

Kids were more interested in this page than one might expect. I think they liked the colored ovals and short small blocks of text. I believe this made the information more intriguing.

•Suggestion: One person asked that we add the Quotation Mark method for exact results.

WHAT IF YOU CAN'T FIND ANYTHING?

Finding:

This page was just too dull. It needs something big to make it interactive.

•Recommendation:

1. Perhaps breaking text into chunks and adding color.
2. Have the sad face turn into a blue ribbon award upon rollover.
3. Key Words image could break into fragments upon rollover and re-form when user mouses over?

Note: this might be misleading however...

SCAN THE PAGE BEFORE YOU READ

Finding:

They tried to read the tiny text in "sample" image. Well, the instructions DO say to read the first and last paragraph!

•Recommendation:

1. Add more text on the sample page because there are only two paragraphs now.
2. Make the text more legible so they won't strain their eyes trying to follow instructions.
3. Make red lines pointing at each element.
4. Fix the caption that is mislabeled "subhead".

IS THE INFORMATION RIGHT FOR YOU?

Finding:

Everybody liked the Five-Finger Test! Keep as is!

IS THE INFORMATION FOR REAL? PAGE

Finding:

All users quickly understood that they were to determine if the 4 sample pages were real or not. However, when they went to the pages, they didn't see the "Is this real or bogus banner" at the top of the page. One young boy finally clarified this for me. When prompted to use the buttons at top, he exclaimed that he thought that was just a banner ad, and he didn't see it!

•Recommendation:

1. Experiment with new ways to display the "is this real or bogus" section.
 - a. Use a separate pop-up window, with javascript code?

Possible problems:

- pop-up windows might also be viewed as advertisements
- might open below the existing window on some browsers, where they wouldn't be seen
- sometimes these windows open with too-small dimensions, and no scrolling function
- some users might have javascript disabled

b. Create a graphic block that is very obvious, within the screen area, with real and bogus buttons

I think this is the best solution.

2. Make minor text changes on For Real page: underline links.

More notes regarding this section:

1. Everybody enjoyed this exercise.
2. Kids were delighted when they got the right answer. They liked the ape and award images.
3. The bogus pages were just a little too interesting. Everybody got bogged down reading the text or perusing and laughing about the Kat Concepts.

•Recommendations:

UFO page: Make it all fit on one screen: shorten text, add more obviously "bogus" UFO pictures.

Kats.Kom: Make text and cartoon cats larger, make "adoptable pets" button more obvious.

PUT IT IN YOUR OWN WORDS:

Finding:

This page was surprisingly popular. I think users enjoyed reading the little captions in the bubbles as they moused over them.

NOTE TAKING SECTION

Finding:

Users wanted more information about how to use note-taking methods.

•Recommendation:

1. Add appropriate "notes" which appear in each section upon mouseover (on descriptive pages).
2. On central page, the text "Click on any item to learn more about..." could light up or something.

Note: Kids were delighted to find methods they had already used themselves -- as if their method was now "famous" because it's on the web.

PRINT pages

Finding:

There was some minor confusion when the "Clustering" and "Data Sheets" printed pages looked different from the web sample.

•Recommendation:

1. Change printable image to conform with web image.

Finding:

The icon says "Print this form", and kids expected that pressing this button alone would make the page print out.

They did not notice the instructions on the print page to "Use the PRINT COMMAND on your computer".

•Recommendation:

1. A usability test subject (girl, age 10) suggested that we explain it better:
Press either "Control-P" or "Apple-P", or use your computers "Print Keys" to print the page.
2. Change the text from "Print this Form" to something more exact:
For instance: "Go to a page you can print." or "Go to a printable page."

FOOTNOTES/ BIBLIOGRAPHY/ BIB CARD SECTIONS

Findings:

This was a little advanced for the target users, but kids were interested in the information (if they weren't already too tired from going through the site.)

•Recommendation:

1. Retain these sections as "advanced" topics. Create a For Research Wizards Only area. See Site Map.

ORGANIZE YOUR INFORMATION page

Finding:

Users didn't immediately perceive that the segments were games that could be "played."

•Recommendation:

1. Make it clear with text instructions that pop up on mouseover.

COMPARE and PUT IN ORDER pages

Users liked the games and played them enthusiastically. The puzzle was a little clumsy.

•Recommendation:

1. Make a larger "hot spot" cover the entire text under dot.

CONCLUSIONS page

Finding:

This page loaded slowly. Needs to be reduced in size and checked for errors. Response was weak because of this problem.

SHARE

Finding:

Very popular page! Users enjoyed playing with movement and reading list of things to do to see if they sounded like fun.

EVALUATE

Finding:

Users wanted something more to happen. One commented that the RUBRIC CUBE could be workable. YIKES. Perhaps we could accomplish that in the Flash version.

THANKS

Finding:

Page was a bit slow to load. Users who hung around liked the activity and read the captions on each character.

GENERAL OBSERVATIONS:

Kids would get right up to the screen trying to read the text on a 17-inch monitor. This was using the 760 pixel wide version. However, users with smaller screens or lower resolutions have to scroll to see all the elements.

I wonder if reducing the overall page size would render the text unreadable for some users. Perhaps reducing everything to 92% would solve the problem. I am beginning to think that 80% is too much reduction.

ALT text

The rollover text actually added to the experience because something appeared to be happening. This represents an opportunity to emphasize certain concepts. As I mentioned earlier, this extra function would not be available to Macintosh users.

CAPTIONS

Text within caption bubbles over the character's heads was more likely to be read than static text on the page. We could use this to our advantage by having the characters "say" the messages we want to emphasize.

Kids wanted more games, more interactivity, more things to happen! Most of these problems will be resolved in the Flash version of the site. For this reason, I suspect the Flash version will be a rousing success!